SUPPLEMENTARY BRIEF

submitted to the

MEDICAL SERVICES INSURANCE ENQUIRY

by the

Ontario Medical Association
244 St. George Street, Toronto 5

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B R I E F

from

SECTION ON OPHTHALMOLOGY
of the
ONTARIO MEDICAL ASSOCIATION

to

MEDICAL SERVICES INSURANCE ENQUIRY

1963

RE: AN ACT RESPECTING MEDICAL SERVICES INSURANCE, BILL NO. 163, INTRODUCED AT THE 1962-63 SESSION OF THE ONTARIO LEGISLATION

PREAMBLE

1. The purposes of this brief of the Section on Ophthalmology, Ontario Medical Association, are threefold:

   1) To state what an Ophthalmologist is and what he does;

   2) To describe the present state of medical eye care in the Province of Ontario, with special reference to treatment services, teaching facilities and research; and

   3) To present proposals for improving medical eye care in Ontario in the foreseeable future.

2. In the course of accomplishing these purposes, this brief will present evidence to show that:

   1) Only ophthalmologists can provide total eye care;

   2) Essential ophthalmic services are now available to the people of Ontario; and

3) Through the enlargement of the existing positive program, ophthalmic services are being made available in remote and scattered communities which, for reasons of geographic location, are not as accessible to the services of any type of medical specialist as are the citizens of the Province's urban areas.

3. Finally, it will be assumed that the next few decades in Ontario will be characterized by an ever-increasing population, and an increasing concentration of people in urban centres.

INTRODUCTION

4. Since there are in Ontario, as elsewhere, a number of words and phrases associated with eye care rendered by physicians, it is useful at the outset to present essential basic definitions.

5. 1. What is an Ophthalmologist?

He is a Doctor of Medicine who has received his degree (M.D.) after the successful completion of six or more years of undergraduate training at an accredited university medical school. He is licenced to practice medicine in Ontario. Additionally, he has successfully completed four to five years of post-graduate study pertaining to the eye and the diseases affecting it. He is a certificated specialist in Ophthalmology, through examination by the Royal College of Physicians and Surgeons of Canada. He may also have the additional qualification of Fellow of the Royal College of Surgeons in Ophthalmology (F.R.C.S.(C), from this

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same Royal College. The Ophthalmologist is the ultimate source of help and advice for eye care.

6. The importance of a thorough and professional medical training for the practice of ophthalmology lies in the fact that no different principle applies to the care of the patient with ocular (eye) symptoms than to the care of any other patient. Ocular manifestations cannot always be evaluated as isolated disorders of a particular organ. The eye and the visual system must be evaluated in the light of the patient's entire medical status.

7. In brief, the work of the Ophthalmologist involves the examination and treatment, both medical and surgical, of patients with eye trouble. He must be constantly alert to preventative medical care and advise accordingly. He co-operates with other medical specialists and general practitioners in the diagnosis and continuing care of such conditions as brain tumor, haemorrhage and trauma, high blood pressure, kidney disease and other "team work" medical problems.

8. An Oculist is an Ophthalmologist, and so is an Eye Physician and an Eye Surgeon. The term Eye Specialist should be synonymous with Ophthalmologist, but in current popular usage appears to have lost this precise definition.

9. 2. In the field of eye care there are also a number of para-medical or ancillary personnel working under the direction of the Ophthalmologist

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5. The importance of a thorough and professional medical training for the practice of ophthalmology lies in the fact that no different principle applies to the care of the patient with a blind (eye) symptoms than to the care of any other patient. Ocular manifestations cannot always be evaluated as isolated disorders of a particular organ. The eye and the visual system must be evaluated in the light of the patient's entire medical status.

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8. In the field of eye care there are also a number of para-medical or auxiliary personnel working under the direction of the Ophthalmologist.

whose positions or services require definition. These include:

a) The Ophthalmic Nurse: A Registered Nurse who has been specially trained by an Ophthalmologist to assist in the medical and surgical care of the ophthalmic patient.

b) The Ophthalmic Assistant: There are several categories. In Ontario, a candidate for training as an Ophthalmic Assistant must have qualifications which would enable him to enter a provincial university. The Ophthalmic Assistant receives two years' training in essential technical procedures associated with ophthalmology. These Ophthalmic Assistants perform tonography, an indispensible adjunct to the diagnosis and treatment of glaucoma. They are trained also to conduct examinations of the optical system to determine if glasses are required.

c) The Orthoptist, or Orthoptic Technician, also must have qualifications required for entrance to an Ontario university. The Orthoptists' specialized training, directly supervised by an Ophthalmologist, qualifies them to examine eyes with particular reference to muscle balance, muscle function, and to conduct treatment, under the direct supervision of the Ophthalmologist, for disorders of the eye muscles.

d) The Optician, or Dispensing Optician; as defined by the Ophthalmic Dispensers' Act (Bill 111, 1960-61, Ontario) is one who is registered under this Act and who is entitled to:

(1) supply, prepare and dispense ophthalmic appliances (lenses, spectacles, eye glasses, artificial eyes, contact lenses and

appurtenances thereto for the aid and correction of visual or ocular anomolies of the eye;)

(2) interpret prescriptions of legally qualified practitioners of medicine or optometrists;

(3) fit, adjust or adapt these appliances to the human face and eyes in accordance with the prescription of a legally qualified medical practitioner or optometrist.

10. The term 'refraction', as a procedural term, means the applying of optical principles to measure the powers of vision.

11. A 'medical eye examination' consists of the meticulous integration of the patient's medical history with the functional, optical and physical findings, pharmacological responses, corneal tonometric readings and laboratory findings - all interpreted in relation to the individual and his environment.

12. Thus 'refraction' is seen to be only one aspect of the total evaluation of the patient's ocular condition. Only a physician can assess a patient's general medical condition in the light of his ocular findings.

EYE CARE BY PHYSICIANS IN ONTARIO

A - HISTORY:

13. Although it is believed that eye glasses were invented at about the beginning of the fourteenth century A.D., the scientific medical basis for prescribing

glasses came only in the middle of the last century, as a result of research conducted by the Dutch Ophthalmologist, Donders.

14. The study of the structure, function, and diseases of the visual system (ophthalmology) thus became one of the first specialties of medicine; and the care of the eye, its associated structures and the related pathways of the brain, therefore, does not call for a lesser training than does the practice of medicine in general.

15. However, in the last century, ophthalmological training was highly individual and unsystematized in Canada. Medical doctors who chose to specialize in Ophthalmology made their own arrangements to study in the eye clinics in Europe and the United States. Following World War I, some Canadians studied at the newly-founded ophthalmic institutions in Britain and the United States.

16. The first formal training in eye diseases in this country began in 1941, for physicians who had received the degree of Doctor of Medicine. The courses of study were planned, organized and directed by Dr. Walter W. Wright, at the University of Toronto, and in the years between 1945 and 1963 (June) a total of 87 medical doctors successfully completed their ophthalmological training here. During this passage of time, almost two decades, the quality of training, as well as the number of graduates, has risen consistently.

17. More recently, courses in ophthalmology on the post-graduate level have been organized at the Province's three other university medical centres: The University of Ottawa (Ottawa,) The University of Western Ontario (London,) and Queen's University (Kingston.) Training is of the same professional calibre as at the University of Toronto.

18. In 1963 a total of eight Ophthalmologists graduated from these four provincial centres. It is expected that there will be nine in 1964, and ten in 1965.

19. When Faculties of Medicine are established in other Ontario university centres, it is expected that similar post-graduate courses in ophthalmology will be inaugurated.

B - OPHTHALMOLOGICAL TRAINING IN ONTARIO

20. The present curriculum in ophthalmology, as directed by the Division of Postgraduate Medical Education, Faculty of Medicine, University of Toronto, may be taken as representative of the curricula prescribed at all four Ontario universities offering such training.

21. Applications are received and processed from between 50 and 70 doctors every school year, and an average of five or six are accepted. The number of accepted candidates will rise appreciably only when existing training facilities are expanded.

22. An accepted candidate, as indicated, must have received his degree of Doctor of Medicine (a minimum of six years of undergraduate study.) He must, as well, have completed one year of rotating internship in an accredited hospital.

23. The post- raduate Ophthalmological program consists of:

    a) One year of hospital training in internal medicine and/or general surgery or one year of research in basic sciences relating to ophthalmology.

    b) Three years of intensive ophthalmological training under the direct supervision of the Department of Ophthalmology of the University Medical Faculty.

24. During this period of study, the practical side of ophthalmology is emphasized so that, upon completion, the trainee is competent in all aspects of clinical and surgical ophthalmology.

25. Ophthalmologists-in-training conduct research projects, examine and treat patients under direction in clinics in hospitals, and accompany staff doctors on their hospital rounds and grand ward rounds. They must also complete courses of study under supervision, during the three years of post-graduate studies. Lectures are given by staff Ophthalmologists in the out-patient clinics of hospitals.

26. At all times during this extended period of study there is strong emphasis upon the practical side of ophthalmology, so that, upon graduation,

the candidate is thoroughly competent in all aspects of clinical work and surgical ophthalmology. Trainees perform more than 200 surgical operations, under supervision, and in excess of 4,000 major ophthalmological examinations before final graduation.

27. Trainees who complete these five years of post-graduate training are eligible to try the examinations of the Royal College of Physicians and Surgeons of Canada, qualifying examinations which were set up, in Ophthalmology, in 1945.

28. Training programs at other Ontario university centres, as has already been indicated, correspond closely to that conducted at Toronto. Thus all students trained in the province are at an equal advantage when trying the qualifying examinations in ophthalmology laid down by the Royal College of Physicians and Surgeons of Canada. It should also be noted that training and qualifying examinations in Canada are recognized accordingly throughout the world.

C - THE PRESENT PRACTICE OF OPHTHALMOLOGY IN ONTARIO

(i) A STATISTICAL EVALUATION

29. How many ophthalmologists are practicing in Ontario in 1964?

There are 191 medical doctors confining their practice to ophthalmology and providing service for a population of approximately 6,400,000. For purposes of comparison, there are 43 medical doctors in Alberta rendering eye service to a population of approximately 1,400,000.

30. How many ophthalmologists should be practicing in Ontario to provide adequate medical eye care service?

There are two approaches to this question. First, there is an "ideal" as expressed by the World Health Organization, the internationally recognized agency of the United Nations. This ideal is three ophthalmologists for every 100,000 people. This ratio is exceeded in the United States (3.3 per 100,000,) but is far from realized in Great Britain (less than one per 100,000.) In Ontario the ratio is 3 per 100,000, thus meeting the U. N. ideal.

31. Using World Health Organization figures, rounded out for convenience, ophthalmologists in Ontario should conduct approximately 600,000 medical eye examinations annually to serve the population. In actual practice, however, since the average ophthalmologist conducts 4,000 examinations every year, a total of 764,000 such examinations are conducted every year in Ontario.

32. Second, there are the figures supplied by Physicians' Services Incorporated, and Windsor Medical Services, which between them cover over 30 percent of the people of Ontario. These figures suggest the demand for medical eye examinations in Ontario to be 65 per 1,000 persons per year. Therefore, adequate service on this basis for the entire province would mean a total of 416,000 examinations every year, if all residents in Ontario were to be insured.

33. Before leaving the question of statistics as they apply to averages, the considered opinion of practicing ophthalmologists in Ontario relating to the number of medical eye examinations an individual should undergo is offered.

34. Pre-school and school children present certain problems for ophthalmic care. For the purpose of this presentation, abnormal eye movements, poor co-ordination between the two eyes and especially the development of failing vision in one eye in children, are to be considered ocular diseases.

35. Fortunately for these children, pre-schoolers and school-age alike, there are certain people who form, in effect, ocular screening groups. These groups give greater than average attention to children's eyes. Parents, teachers, school nurses, family doctors and paediatricians all combine their efforts to determine whether the individual child is suffering from eye defects which might impair his visual function and adversely affect his school work. These screening procedures, of course, lead to referral of cases of suspected ocular difficulty to the ophthalmologist for complete examinations.

36. Examination of these referrals shows that the screening procedures as outlined above uncover all those cases requiring ocular attention and, in addition, some cases which require no ophthalmic appliances or

medication but merely advice on better working and reading habits. There is no evidence that further intensive screening procedures would uncover any additional real ocular disease.

37. It should be noted at this juncture that the screening procedures just described are done best with the Snellen Vision Chart under the supervision (in school) of the school nurse. There are a number of mechanical optical sight screeners available, but the Snellen Vision Chart, when properly used, is both cheaper and more efficient. Evidence accumulated since 1951 confirms the findings of Drs. A. Lloyd Morgan, John S. Crawford, Thos. J. Pashby and John R. Gaby, in their experiments at the Sick Children's Hospital, Toronto, to the effect that the above mentioned chart is more efficient than the machines.*

38. Summing up statistically, ophthalmological examination services in Ontario more than meet the existing demand and the ideal figures postulated by the World Health Organization of the United Nations Organization.

*("A Survey of Methods Used to Prevent Eye Defects in School Children," Canadian Ophthalmological Society, University of Toronto Press, 1952.)

(ii) PRACTICAL EVAULATION

(a) - Urban Areas

39. The question now arises: in actual practice, how satisfactory is the availability of ophthalmological service to the citizens of Ontario? In answering this question, a number of factors must first be considered.

40. First, the changing character of the Ontario population.

At the turn of the century Ontario, like her sister provinces, was predominantly rural; today, Ontario is predominantly urban, and the trend toward living in cities and large towns is increasing. Over half the population lives in cities with a population of 50,000 and more, and 41% live in metropolitan areas ranging from 100,000 to 1,600,000 in population. Assuming Ontario follows the general Canadian pattern, 80% of Ontarioans live in cities of 25,000 and more, and predictions for 1980 suggest 92 out of every 100 workers will be engaged in non-agricultural pursuits.

41. Second, the fixed aspects of the pattern of population.

In Canada as a whole there is a marked concentration of population in a number of pockets centred on the St. Lawrence Lowlands, Winnipeg and South West British Columbia. In Ontario, for example, the overwhelming number of citizens live in the "golden horseshoe" extending around the westerly part of Lake Ontario from Oshawa, through Toronto and Hamilton, to the Niagara Penninsula.

42. "This pattern has not changed greatly over the years and it is not likely to alter much in the future, except possibly to become more pronounced proportionately. Although Canada is one of the most sparsely populated countries in the world when considered from the viewpoint of total area, our physical geography and climate have resulted in a peculiar pattern of population concentration which will not likely be disrupted in the immediate future."**

43. Third, the increasing mobility of population.

Expenditures on automobiles and highway construction have increased astonishingly; travel by air is now commonplace and both forms of travel compete vigorously with the traditional modes of rail and bus travel.

44. Fourth, methods of communication have kept pace with physical mobility.

The telegraph and telephone have been augmented, in this regard, by radio and television stations and networks, by the teletype and by the wire services on which the printed forms of communication depend. In a phrase, geography need no longer be a barrier.

45. In the light of these factors, it is not surprising that the ophthalmologist tends to choose an urban centre as the base for his professional practice. He follows the pattern of other specialists in the medical profession, in other professions, in education, in commerce and industry; his base of operations must supply him with the facilities

**(Excerpt from Lloyd Brooks' "The Forces Shaping Demand for Recreation Space in Canada," Conference Background Papers, Resources for Tomorrow Conference, Montreal, 1961)

he requires, which, in the case of the ophthalmologist, is a hospital at the very least. His own investment in training and in the kind of highly specialized equipment he needs to practice his specialty also indicate that he must practice where he is able to put these facilities to maximum use. His investment really becomes a community investment and he must establish his practice where the majority of his patients may easily call upon him for his specialized services. The converse of this, of course, is that there are some remote areas where the ophthalmologist cannot operate full-time, and special approaches must be developed in order to extend the availability of medical eye care for people living in such areas.

46. Almost without exception, then, the ophthalmologists of Ontario, as in other countries, have their offices in urban centres. An analysis of the location of ophthalmologists' offices (see appendix #1) indicates that in the southern part of the province there is hardly a citizen who lives more than fifty miles from an ophthalmologist's office.

47. The northern and northwestern parts of the province present a somewhat different picture. The major communities - including such cities as Port Arthur and Fort William, Sault Ste. Marie, Sudbury, North Bay, Timmins and Kirkland Lake - are adequately served, but there are many small communities stretching out along

such highways as #11 and #17 which are considerably in excess of fifty miles from the closest ophthalmologist.

48. The conclusion to be drawn is, that while some 90% of the people of Ontario are served directly, a small percentage is not.

(b) Remote Areas

49. Against this must be set the factors of mobility and communication discussed above, and the medical fact that, accidents aside, few eye problems (in terms of examinations or operations) are critical in terms of hours or even days. However, mobility and communication are such that the inhabitant of the most remote community may be put into contact with an ophthalmologist and moved to an urban centre where the necessary hospital facilities are available, within a matter of hours, should emergency measures be called for. There is also the fact that every general practitioner is an eye doctor as well as many other things, and can be counted upon in such situations.

50. This is not a situation that ophthalmologists view with complacency or satisfaction. The demonstrable ability to cope with emergencies notwithstanding, there is a strong desire that the remote or rural citizen have available to him and his family the same quality of service the urban resident takes for granted.

51. A number of solutions to the problem of supplying medical eye care to remote communities have been suggested and tried. One which is proving successful on the practical level, and which is coming increasingly into operation, is the mobile clinic, operated in conjunction with other agencies, including the Canadian National Institute for the Blind.

52. The Institute, which is vitally concerned with the prevention of blindness, is extremely active at the community level and has developed close liaison with local laymen who are prepared to devote time to voluntary work, as well as with medical doctors and nurses working in both the public and private fields.

53. As a result of continuing co-operation between ophthalmologists and the Institute, two types of ophthalmic clinics have been developed and are currently in operation.

54. The first is the periodic clinic conducted on a regular basis, and two examples will illustrate this approach.

55. Parry Sound, 160 miles north of Toronto, is the site of a clinic which is held in the local hospital four times every year. Every clinic extends through a full evening and one full day. Voluntary help is recruited by the Institute. A trained nurse is provided by the Institute and an ophthalmologist from Toronto is in attendance. The patients who come

to the clinic for examination and treatment are referred by the C. N. I. B. and by general practitioners of the Muskoka-Parry Sound area.

56. The Hawkesbury clinic, some 60 miles down the Ottawa River from Ottawa, is similarly conducted. It is in operation three times every year in a local hospital, for one full day, and two ophthalmologists from Ottawa are in attendance. Referrals are made through the Public Health Nurse of the area.

57. The second type of clinic is designed to deal with a community in which a backlog of eye patients may have developed over a period of time, either because a local ophthalmologist has literally been unable to cope with the numbers or because patients for one reason or another have not been able to get out to visit the nearest ophthalmologist. As an example of the former, a clinic was held in Sudbury for three successive years to assist the (then) one local ophthalmologist. As an example of the latter, a clinic was held on three successive days in towns of Kapuskasing, Cochrane and New Liskeard.

58. Clinics of these two types, in the professional view, will be expanded actively as one method by which the small percentage of Ontario citizens in tiny or remote communities will receive the essential professional attention enjoyed by most urban citizens now. Co-operation with other groups - co-operation with local Service Clubs is a good example -

will be sought out to increase the scope and effectiveness of the clinics, all the more so as a result of successful co-operation with the Gyro Club of Kitchener in meeting the needs of rural patients in an area surrounding that city. Club members assist in driving patients to and from the ophthalmic offices and also help with the administrative details associated with such work.

SPECIAL SERVICES

59. In another area, Ontario ophthalmologists render assistance on a province-wide basis through the Eye Bank of Canada (Ontario Division.) This organization is operated co-operatively by the Canadian National Institute for the Blind and the Department of Ophthalmology, Faculty of Medicine, University of Toronto, with members of each on the Managing Committee. The Eye Bank obtains, prepares and distributes corneal tissue to corneal surgeons who perform surgery on patients requiring corneal grafts. It also carries out research with respect to the many problems associated with corneal transplantation and corneal diseases.

60. In yet another area, Ontario ophthalmologists render a special service, related not to geography but to need. Many citizens of low income receive adequate professional ophthalmic care and treatment at no cost through the out-patient clinics which have been developed in fourteen hospitals in many Ontario centres, and in the offices of ophthalmologists.

61. All such clinics are supervised by a staff ophthalmologist who may be on hospital or university staff, but who renders such services on a free, public service basis. Whatever the arrangement, the patients receive examinations and treatment free of charge and the ophthalmologist donates his services without cost.

62. A detailed account of how the average Ontario ophthalmologist spends his working day, and how this day is divided between examinations and surgery, between private and public practice, between professional work and lecturing, is contained in appendix #2. The examples have been drawn from Ottawa but may be considered typical for ophthalmologists working in any city which is also a university and hospital centre.

D - RESEARCH

PRESENT OPHTHALMOLOGICAL RESEARCH PROGRAM, TORONTO

63. There are ten projects under way at the Banting Institute, University of Toronto, in the field of Ophthalmology. The research staff consists of 15 professionally trained and 12 to 15 technically trained people. Since students on the post-graduate level must take part in original research projects, students are available to assist in these programs:

1) Eye Bank and Corneal Transplantation.
2) Glaucoma.
3) Retinal Detachment: better methods of curing retinal diseases.
4) Ocular Complications of Diabetes (Diabetic Retinapathy.)

5) Bio-Chemical Studies of Cornea.

6) Inter-Ocular Penetration of Steroid.

7) Protein Metabolism of the Cornea.

8) Chromasomal Studies on Hereditary Diseases of the Eye.

9) Ocular cancers.

10) Contact Lenses.

64. Most projects contain many subdivisions. Most involve both basic and clinical research. Special investigation clinics are being held as follows:

1) Glaucoma (one clinic weekly.)

2) Cornea (twice monthly.)

3) Retinal Detachment (twice weekly.)

There are active ophthalmological research programs also going on in the University Medical Centres in Kingston, London and Ottawa.

E - AREAS OF CONCERN

65. With certain types of eye disease, the ophthalmologist is especially concerned. Glaucoma and cataracts are two such diseases. In glaucoma, a disease appearing in one to one and one-half percent of the people over 40 years of age, many of the early symptoms are similar to those experienced by a person requiring a change in spectacles. Only the most careful examination by an eye physician will determine the presence or absence of this sight-destroying disease.

66. A cataract in its early stages must be recognized and assessed as far as its relation to general body disease is concerned. The formation of cataracts may be the first indication of diabetes, serious nerve disease or some other general body ailment.

67. In another area, that of children with eye defects such as squint and strabismus, the ophthalmologist feels that great care must be exercised. Dr. Lloyd Morgan, Ophthalmologist in Chief at the Hospital for Sick Children, Toronto, says that every child in whom an eye defect has been noted or suspected, requires an examination by an eye physician. Total investigation of eye defects in very young children may require that the child be given an anaesthetic by the doctor. In all cases, drops must be given by the physician to dilate the pupil to permit adequate examination of the interior of the eye.

68. All abnormal findings discovered in the various tests can only be evaluated adequately through the full use of the medical training of the ophthalmologist.

CONCLUSIONS

69. 1) Essential medical eye care is presently available to the residents of Ontario.

2) Present training programs are producing an increasing number of ophthalmologists and para-medical ophthalmic personnel, who will

make increasingly available medical eye care to all areas of the Province, including the more remote areas.

3) Research programs in Ophthalmology are in progress at all university medical centres.

4) Present training programs are producing Ophthalmologists of a calibre comparable to that produced by other leading countries of Europe and America.

5) Medical eye care is like medical care of the rest of the body. It requires a medically trained person, an Ophthalmologist, to diagnose and treat the medical and surgical conditions of the eye.

6) Many ophthalmic processes are necessary to uncover eye disease.

RECOMMENDATIONS

70. Since the medical care of the eye consists of three fundamental phases, treatment facilities - teaching facilities - and research facilities, each of these aspects must be assessed in determining the proper role of assistance in a Medical Services Insurance Plan.

71. Underlying good treatment services are good research and good training facilities which can attract high calibre medical doctors for training in ophthalmology.

72. It is, therefore, respectfully recommended by the Section on Ophthalmology of the Ontario Medical Association, that:

1. The Government be requested to provide increased grants to presently existing medical faculties, to enlarge their post-graduate training and research programs in ophthalmology;
2. The Government be requested to provide grants to establish new faculties of medicine which will provide further training and research facilities in ophthalmology;
3. The Government be requested to provide grants to medical faculties to increase training of para-medical ophthalmic personnel.
4. That refraction as an isolated procedure for the prescription of glasses be excluded as a benefit under the Medical Services Insurance Act.

OPHTHALMOLOGISTS: ONTARIO, 1963

COUNTY	POPULATION	AREA (sq.mi.)	No. Ophth.	CENTRES	No. GP in Ophth.	CENTRES
BRANT	79,064	421	4	Brantford	-	-
BRUCE	41,551	1,650	-	-	-	-
CARLETON	359,887	947	22	Ottawa	-	-
DUFFERIN	16,518	557	-	-	-	-
ELGIN	59,112	720	2	St. Thomas	1	Springfield
ESSEX	256,867	707	9	Windsor	-	-
FRONTENAC	77,347	1,599	10	Kingston	-	-
GREY	62,610	1,708	2	Owen Sound) Thornbury)	-	-
HALDIMAND	27,736	488	-	-	1	Dunnville
HALIBURTON	8,440	1,486	-	-	-	-
HALTON	122,287	363	2	Oakville	-	-
HASTINGS	86,219	2,323	3	Belleville	-	-
HURON	50,008	1,295	-	-	1	Clinton
KENT	90,172	918	2	Chatham	-	-
LAMBTON	98,532	1,124	4	Sarnia	-	-
LANARK	37,867	1,138	-	-	1	-
LEEDS & GRENVILLE	67,831	1,363	1	Brockville	-	-
LENNOX & ADDINGTON	23,566	1,170	-	-	-	-
LINCOLN	126,559	332	6	St. Catharines	-	-

COUNTY	POPULATION	AREA (sq.mi.)	No. Ophth.	CENTRES	No. GP in Ophth.	CENTRES
MIDDLESEX	215,214	1,240	10	London	1	London
NORFOLK	50,220	634	-	-	-	-
NORTHUMBERLAND & DURHAM	80,523	1,363	-	-	-	-
ONTARIO	138,990	853	4	Oshawa	-	-
OXFORD	70,621	765	1	Woodstock	1	Tillsonburg
PEEL	119,469	469	2	Brampton) Port Credit)	-	-
PERTH	57,189	840	2	Stratford	-	-
PETERBOROUGH	75,989	1,415	4	Peterborough	-	-
PRESCOTT & RUSSELL	47,980	901	-	-	-	-
PRINCE EDWARD	19,656	390	-	-	1	Picton
RENFREW	77,570	3,009	-	-	-	-
SIMCOE	129,469	1,663	3	Barrie) Orillia)	-	-
STORMONT, DUNDAS & GLENGARRY	92,383	1,274	2	Cornwall	-	-
VICTORIA	29,076	1,348	1	Lindsay	-	-
WATERLOO	180,762	516	4	Kitchener	-	-
WELLAND	164,896	387	7	Niagara Falls) Welland) Port Colborne)	-	-
WELLINGTON	84,345	1,019	3	Guelph	-	-

COUNTY	POPULATION	AREA (sq. mi.)	No. Ophth.	CENTRES	No. GP in Ophth.	CENTRES
WENTWORTH	342,964	458	11	Hamilton) Stoney Creek)	-	-
YORK	1,713,411	882	57	Toronto) Markham)	9	Toronto) Stouffville)
DISTRICT						
ALGOMA	97,375	19,320	1	Sault Ste. Marie	-	-
COCHRANE	76,895	52,237	1	Timmins	-	-
KENORA	30,992	153,220	-	-	-	-
MANITOULIN	7,114	1,588	-	-	-	-
MUSKOKA	24,574	1,585	-	-	-	-
NIPISSING	61,525	7,560	1	North Bay	-	-
PARRY SOUND	23,727	4,336	-	-	-	-
RAINY RIVER	22,732	7,276	-	-	1	Emo
SUDBURY	149,735	18,058	3	Sudbury	-	-
TEMISKAMING	44,703	5,896	-	-	1	New Kiskeard
THUNDER BAY	125,578	52,471	5	Fort William) Port Arthur)	-	-
			1	Kirkland Lake	-	-

THE PRACTICE OF OPHTHALMOLOGY IN OTTAWA

1. POPULATION

a)	Ottawa City	250,000
b)	Ottawa Valley within service area	250,000
c)	Total population served by Ottawa Ophthalmologists	500,000

2. OPHTHALMOLOGISTS

a)	Ottawa Civic Hospital	10
b)	Ottawa General Hospital	7
c)	In-Service Hospital	1
d)	Total	18

3. PUBLIC PATIENTS

a) Examined and treated at the outpatient clinics, Ottawa Civic and Ottawa General Hospitals.

b) Also: referrals from C. N. I. B. and family physicians in Ottawa Valley are seen in Ophthalmologists' offices.

c) C.N.I.B. Clinic, Hawkesbury: 2 Ophthalmologists spend four days per year.

d) Pembroke Clinic: one Ophthalmologist spends one day per week.

4. TEACHING

a) Ottawa General and Ottawa Civic Hospitals are active in teaching undergraduate medical students.

b) Postgraduate teaching in Ophthalmology started July 1, 1962. Two trainees per year at present. First graduation: 1967.

c) Both hospitals active in teaching nurses.

5. HOSPITAL CLINICS

a) Ottawa Civic Hospital
4 General Clinics per week, 4 hours per clinic;
1 Glaucoma Clinic per week, 4 hours per clinic;
Patients seen (1 year period) - 2,589
Surgical operations - 826

b) Ottawa General Hospital
A General Clinic every afternoon;
A Glaucoma Clinic one afternoon per week;
Patients seen (1 year period) - 2,697
Surgical operations - 650.

BRIEF STUDIES: OTTAWA OPHTHALMOLOGISTS

1. DOCTOR A

Patients seen per year:

Office:	4,160
Hospital Clinic:	440
C.N.I.B. Clinic:	57
Crippled Children's Centre:	40
Total:	4,697

Surgical Operations per year:

Office:	80
Public:	21
Total:	101

2. DOCTOR B

Patients seen per year	3,500
Surgical operations per year	139
Hospital practice: a) 2 hours per day	
b) 1 half-day public clinic	
Undergraduate teaching -	16 hours per year
Postgraduate teaching -	12 hours per year (lectures)
	1 1/2 hrs. per week Clinical Conferences

3. DOCTOR C

Patients seen per year	3,021
Surgical operations:	
Private - 100 per year	
Public - 4 per month	
Hospital practice:	1 hour per day
	1 1/2 days per week public clinic
Undergraduate teaching -	12 hours per year
Postgraduate teaching -	12 hours per year (lectures)
C.N.I.B. Clinic -	4 days per year

4. DOCTOR D

Patients seen per day	20 - 22
Surgical operations per year	91
Public Eye Clinic	1 1/2 days per week
Public Surgery	4 per month
Crippled Children eye work	1/2 day per month
Undergraduate teaching	12 hours per year
Postgraduate teaching	20 hours per year (lectures)

5. DOCTOR E

Patients seen per week	89
Surgical operations per week	4
Public Eye Clinic	1 afternoon per week
Undergraduate teaching	15 hours per year
Postgraduate teaching	6 hours per year

6. DOCTOR F

Patients per week (private)	90
Patients per week (DVA)	24
Surgical operations per week	4
Eye Clinic	1/2 day per week (4 hours)
Undergraduate teaching	1 1/2 hours per week for nine months
Postgraduate teaching	3 hours per week, full year.

3. DOCTOR C

Patients seen per year	5,021
Surgical operations:	
Private - 100 per year	
Public - 4 per month	
Hospital practice:	1 hour per day
	1 1/2 days per week public clinic
Undergraduate teaching -	12 hours per year
Postgraduate teaching -	12 hours per year (lectures)
C.N.I.B. Clinic -	1 days per year

4. DOCTOR D

Patients seen per day	20 - 25
Surgical operations per year	91
Public Eye Clinic	1 1/2 days per week
Public Surgery	4 per month
Crippled Children eye work	1/2 day per month
Undergraduate teaching	12 hours per year
Postgraduate teaching	20 hours per year (lectures)

5. DOCTOR E

Patients seen per week	80
Surgical operations per week	4
Public Eye Clinic	1 afternoon per week
Undergraduate teaching	16 hours per year
Postgraduate teaching	6 hours per year

6. DOCTOR F

Patients per week (private)	30
Patients per week (DVA)	24
Surgical operations per week	4
Eye Clinic	1 1/2 day per week (4 hours)
Undergraduate teaching	1 1/2 hours per week for nine months
Postgraduate teaching	2 hours per week, full year.